A14 Cambridge to Huntingdon Improvement Scheme – consultation response

Context:

This is the response from Campaign for Better Transport to the Highways Agency's consultation on proposals for new and expanded road capacity between Cambridge and Huntingdon.

- Project website: http://www.highways.gov.uk/roads/road-projects/A14-Cambridge-to-Huntingdon-Improvement-Scheme
- Consultation documents: https://www.gov.uk/government/consultations/a14-cambridge-to-huntingdon-improvement-scheme

1. Current conditions on this stretch of A14

The charts in Figs 1 and 2 put the development of this proposal in the context of current and recent traffic conditions on the road. They show that, since 2000, traffic has not been increasing significantly and that HGV traffic has been falling.

Comparison of conditions in 2012 with 2002 shows that over the past decade traffic on the A14 has been flat or falling:

North/West of Huntingdon

- Motor traffic changed by +0.6%
- HGV traffic changed by -11.3%

Between Cambridge and Huntingdon

- Motor traffic changed by -4.2%
- HGV traffic changed by -8.1%

There have also been considerable reductions in traffic compared with the highest peak level in each case:

North/West of Huntingdon

- Motor traffic fell by -5.2% vs 2008
- HGV traffic fell by -18.0% vs 2004

Between Cambridge and Huntingdon

- Motor traffic fell by -10.1% vs 2005
- HGV traffic fell by -17.4% vs 2007

Fig 1. All traffic on the A14 in the study area[1]

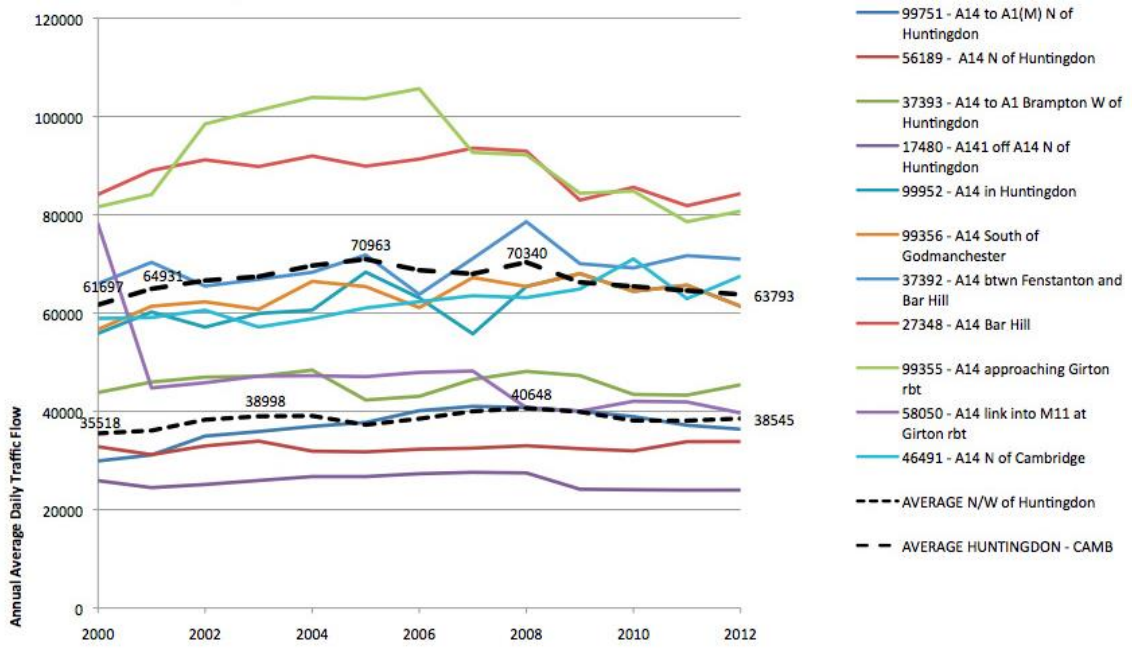
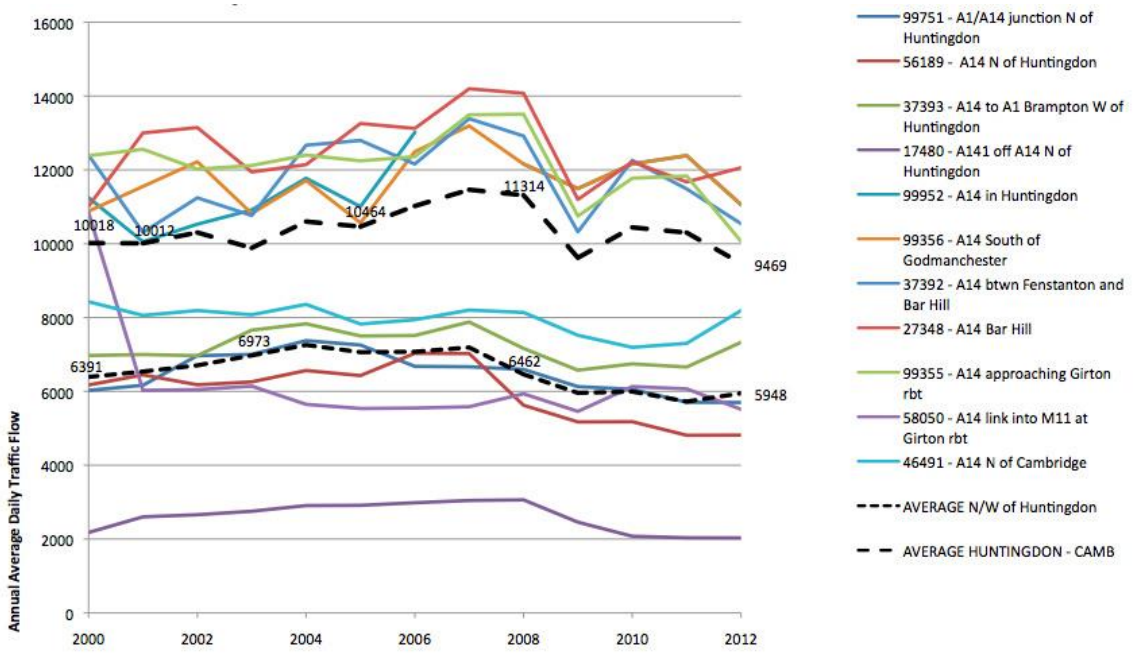


Fig 2. HGV traffic on the A14 in the study area[1]



Against this background, we strongly oppose any new road building in this area, and argue that the recent history of flat or reducing traffic allows considerable 'breathing space' to look at other options that will build on these trends and reduce traffic further rather than encourage more traffic and car dependency.

[1] Data from DfT Traffic Counts website http://www.dft.gov.uk/traffic-counts/

2. Choice of options to pursue

Why traffic reduction is a better policy

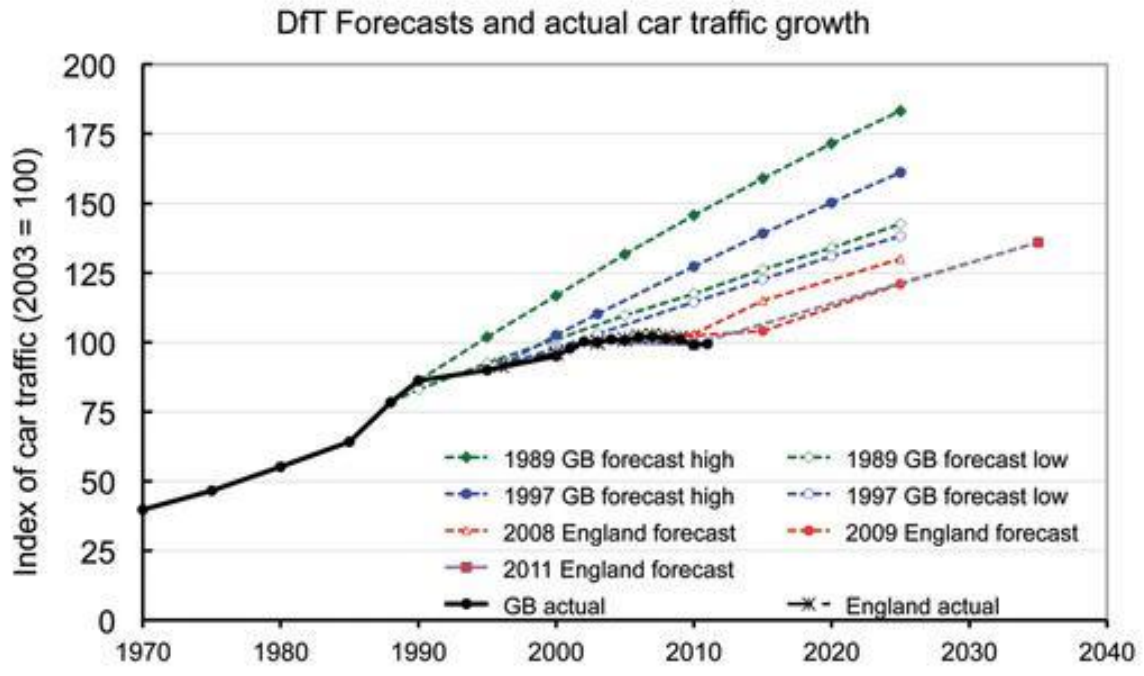
Campaign for Better Transport has opposed policies of 'predict and provide' for many years, and there is a substantial and well-established evidence base that new capacity has a very limited and short-term effect on congestion - filling up again rapidly while locking in unsustainable travel patterns.

The proposal would cause widespread environmental problems, including massive ecological damage and induced traffic along the A14 corridor, much of which runs close to homes. This is not compensated for by the temporary reduction in traffic within Huntingdon that would result from the section of bypass. Transport would be improved more sustainably by traffic reduction policies within Huntingdon and Cambridge, and across the wider area.

Many negative factors, including air pollution, carbon emissions, and environmental damage are not fully taken into account in the standard methods of assessment (which over-emphasise time savings for vehicles on roads, particularly those calculated for the long term). Yet, even with these omissions, the modest level of calculated benefits for this scheme (see Fig 5) show that the case for new road-building in this area is weak and that other options with higher value for money should be sought.

In addition, the projected time savings are based on a comparison with traffic forecasts that are in clear need of revision, and are likely to produce very exaggerated levels of economic benefits when used for long-term calculations. The chart in Fig 3 is a comparison, produced by Professor Phil Goodwin for Local Transport Today[2] of Department for Transport forecasts vs actual traffic levels for the UK in recent years. Each successive forecast since 1989 has consistently overestimated traffic growth, particularly over the long term. It is clear that the methods used for these forecasts need to be reviewed

Fig 3: DfT forecasts vs actual traffic 1989-2011



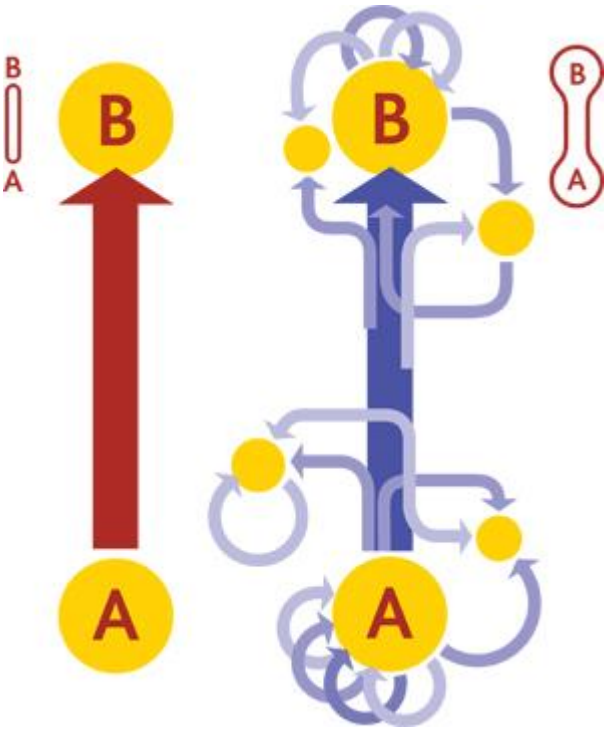
[2] Due diligence, traffic forecasts and pensions, Goodwin P, LTT, April 2012 http://www.bettertransport.org.uk/campaigns/roads-to-nowhere/ltt-130412

Failings of the Highways Agency's response to the A14 Challenge

We were very disappointed to see that the Atkins Study Output documents did not seriously consider the many alternatives to large road building that were put forward as part of the A14 Challenge, including those from local Campaign for Better Transport representatives and residents in Brampton who will be severely affected by the current plans.

Our recommendations for the A14 Challenge[3] were based on the principle of 'corridor planning'. Below is a relevant extract from our response, explaining why we took this approach, and how it can be applied to the A14 around and between Cambridge and Huntingdon.

Fig 4: Corridor planning



Key to our proposals is the principle of 'corridor planning' – the understanding that congestion on a trunk road is not due solely to cars travelling from A to B along that road, but a consequence of many different longer and shorter journeys adding to the total weight of traffic.

The picture [in Fig 4] of a diagram from Campaign for Better Transport's strategic roads planning briefing in 2009,[4] shows the way many people assume travel on a road corridor proceeds, with most trips simply running from A to B. But the picture on the right is more accurate: there are some trips passing through the whole corridor but also plenty of shorter journeys which only use the trunk road for a short part of their journey.

If we only think about A to B journeys (or journeys from beyond A to beyond B), the solutions to congestion will appear very limited. But if we focus attention on the shorter trips adding to congestion at either end, a range of more imaginative measures will be available.

The images reproduced below [Figs 4.5 and 4.6 from [5]] from the A14 Study document show clearly that the situation on the A14 around Huntingdon and Cambridge fits this model, with the highest congestion found close to the urban centres in the morning and afternoon peaks. Therefore, congestion on this stretch of road is likely to be highly susceptible to measures aimed at shorter journeys – not simply at longer-distance traffic.

[3] Response to the A14 Challenge, Campaign for Better Transport, January 2012, http://www.bettertransport.org.uk/files/A14_response_CBT_final.pdf

[4] Widening motorways will worsen, rather than solve, congestion, Campaign for Better Transport, July 2009, http://www.bettertransport.org.uk/system/files/Strategic-Roads-Planning-Briefing-July09.pdf

[5] A14 Study Output 1, Steer Davies Gleave for the Department of Transport, December 2011, http://assets.dft.gov.uk/consultations/dft-20111212/a14-study.pdf

FIGURE 4.5 AM PEAK SPEEDS ON A14

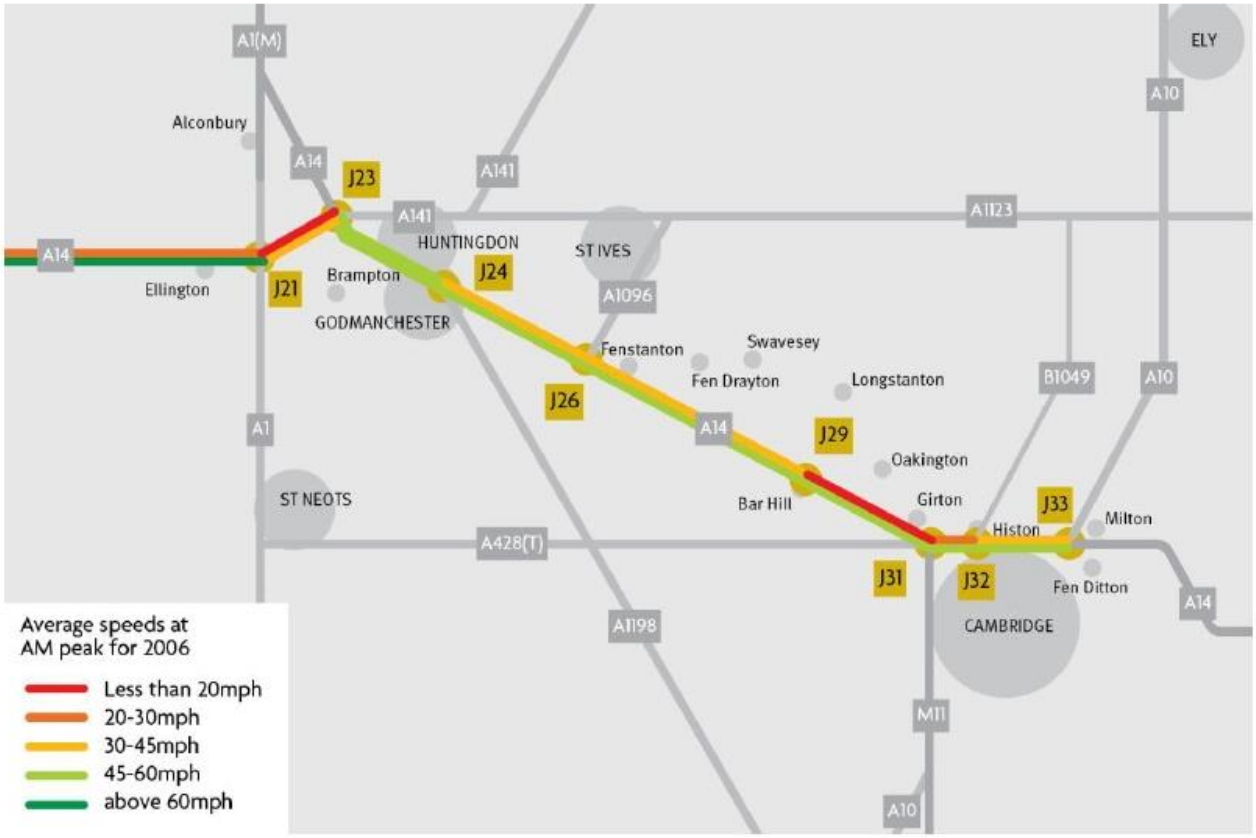


FIGURE 4.6 PM PEAK SPEEDS ON A14

Based on these principles, we recommended that potential solutions to the challenges identified on the A14 should be based on the following practical aims:

A. Reducing the number of cars using the A14 for local commuting
B. Taking long-distance freight traffic away from the A14 and onto rail
C. Improving traffic-management, safety and resilience on the current A14
D. Provide public transport alternatives for longer distance car journeys within the A14 corridor

In some cases – for example rail freight capacity increases at Felixstowe port[6], expansion of services on the Cambridgeshire Guided Busway, and measures to make cycling commuting easier between Cambridge and outlying villages – measures to work towards these aims have already been put in place by other authorities and organisations. There is also a separate 'smart road' Highways Agency project in progress, which should significantly improve traffic management on the current A14.[7] These measures should all make a significant contribution to improving conditions on the road in the absence of the proposals now being put forward, and their effects should be properly considered and evaluated – including the possibility of extending and expanding these measures – before funding is provided for a large road-building project that is not needed.

However, other recommendations we made in our response to the A14 Challenge, including significant public transport improvements, have not yet been pursued and we again suggest these are explored further. In particular the Atkins study looked at a very limited (and strangely poorly patronised) coach service, not the rapid and high capacity express coach services we suggested, and which operate on other routes in the UK, for example Oxford to London.

These ideas included (text taken from submission):

- Widespread demand management and reduction measures across Cambridgeshire to reduce local traffic on the A14 and in the wider area. These should include comprehensive 'Smarter Choices' programmes of workplace, retail and leisure facility travel plans, marketing and promotion of non-car options, better information for travellers and smart tickets for use across different services
- Improved local bus services to reduce rural isolation, improve access to jobs and services and encourage mode shift
- A new park and ride facility at Brampton Racecourse
- Non-transport interventions aimed at reducing the need to travel, such as locating healthcare, shopping and post office services close to where people live, or changing plans for new housing to create more compact, mixed-use developments closer to existing jobs and amenities

[6] Relevant rail freight measures include:
A) New Rail Freight corridor from Felixstowe to West Midlands
The opening of the Ipswich Chord, due in April 2014, will revolutionise how rail freight traffic operates out of the port of Felixstowe, as it will allow freight trains going direct to the West Midlands to avoid Ipswich thus reducing the round trip by 2 hours as well as relieving pressure on passenger and freight services going towards London. Furthermore, the second tranche of capacity upgrades between Felixstowe and the Midlands (HLOS Control Period 5 Phase 2 of capacity upgrades. Reconstruction of Ely North Junction, Leicester area capacity, which helps both passengers and freight), to be implemented in the next Network Rail control period 2014-2019, will allow train operations in and out of the port each day to increase from 30 to 50. These enhancements will increase rail's market share from 25% to around 38% and result in the removal of 40 million long distance lorry miles from the A14 corridor per annum.
B) Next stage on Felixstowe to Nuneaton route Electrification in CP 6 2019-2024
The next measures to improve congestion on the A14 corridor is rail electrification which would bring added economic, environmental and social benefits through extra capacity from longer trains and better utilisation of train paths because of faster acceleration of electric locomotives.

[7] Super highway: A14 to become Britain's first internet-connected road, Guardian, October 2013
http://www.theguardian.com/technology/2013/oct/02/super-highway-a14-internet-connected-road

- A workplace parking levy (WPL) implemented across the region (not just in Cambridge City, where it might encourage workplaces to relocate out of town). This would have benefits in encouraging car-sharing and other measures associated with workplace travel plans, and would also help to raise revenue to pay for other measures in this plan
- Improved east–west passenger rail links to improve the competitiveness of rail compared with road into and out of the region around the A14
- Facilities, funding and co-ordination between operators for the introduction of new express bus services between Cambridge and Rugby to provide easy access to longer-distance rail services

3. Specific problems with the current options proposed

Environmental damage

The proposals involve a long new section of dual carriageway road through greenfield land, and we have always opposed the A14 project on the grounds of the huge ecological damage this would cause.
The consultation documents briefly outline the impact of the scheme on the environment:[8]

"The Agency acknowledges that not all the impacts of the scheme will be positive and will be undertaking a more detailed environmental impact assessment at the next stage of the project. This will consider:

- *landscape character in the floodplain of the River Ouse and across the open agricultural land along the route of the Huntingdon Southern Bypass, where it is recognised there will be significant impacts*
- *light pollution in rural areas caused by road lighting, and how this can be minimised, including limiting its use to trunk-road junctions where possible*
- *air quality impacts including a potential deterioration in air quality resulting from higher traffic levels along the corridor*
- *road traffic noise increases along sections of the scheme where traffic will increase and along the Huntingdon Southern Bypass, where screening and fencing will be necessary to mitigate the effects of noise*
- *construction impacts including noise, dust and air quality issues together with the disruption caused by construction vehicles and traffic management arrangements"*

While we recognise the need to minimise these impacts and to design any new road to the highest possible standards, we also recognise that in many cases mitigation cannot significantly reduce these impacts.

The quote below, from the response to the A14 Challenge from the Offords Action Group, gives some idea of the impact of the bypass on local communities, and we will continue to highlight these problems, express our concerns and support local people in challenging the justification for the scheme when it brings with it this kind of unavoidable impact.

"The Scheme would have had a permanent and devastating effect on the local environment in terms of loss of countryside, impact on the landscape, loss of habitat, destruction of the Great Ouse river valley, increased noise, air and light pollution, potential health risks, increased traffic on local roads, increased flooding risk and loss of valuable arable land."

[8] A14 Brochure, Highways Agency, September 2013
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/239445/A14-cambridge-to-huntingdon-brochure.pdf

Unacceptability of tolls to a wide range of groups

Since a toll road was first proposed for the A14, wide ranging and growing opposition has been evident.

Campaign for Better Transport highlighted in its response to A14 Study Output 3[9] how the modelling of a £2/£4 toll regime resulted in more harm than benefits, due to diversion of traffic onto other local roads.[10] The table below shows that the modelled deterrent effect of these charges proved disastrous to the traffic and congestion benefits that had been calculated for an untolled road. The £2 charge was found to push so many vehicles onto alternative routes that the overall congestion benefits for commuters were wiped out completely, and benefits to business drivers fell to just 22-28% of their original value. This left an economic benefit of – at best – just 93p for every pound spent on building the road. For a longer tolled section of road starting at Milton to the east of Cambridge, the road caused more problems than it solved for all road users, to the tune of £663 million in economic damage compared with not building the road at all.

The study then modelled a £1/£2 tolling regime and found a significant but lesser impact on local roads. With the study showing a very high sensitivity to price, it is very worrying to see a £1.50 toll now being proposed for the road as this would be likely to have a very large impact on local roads and the likely extent of this problem is not made clear in the consultation documents.

Fig 5: Table of figures from Study Output 3 – calculated benefits of 'Option 7' with and without a toll from Ellington to Girton

	Economic/traffic benefits to commuters, £m	Economic/traffic benefits to businesses and business users, £m	Total calculated benefits (also including the cost/benefit of changes to accidents, greenhouse cases and tax revenues), £m	Change in benefits vs no toll
No toll	£486	£651	£1171	-
£1/£2 toll	£147	£380	£537	-54%
£2/£4 toll	£-76	£181	£95	-92%

In addition, the modelling carried out by Atkins assumed a deterrent effect from the tolls that was roughly similar to that seen for the M6 Toll motorway in the West Midlands. However, reaction amongst the public, business groups and local councils in the area around the A14 appears to be even more hostile to the idea than anticipated, and much more hostile than that seen for the M6 Toll. It is therefore likely that there will be an even stronger deterrent effect from tolls on the A14 than has been modelled so far.

Groups recently expressing their concern about a toll road include:

- Suffolk Coastal Councillors, concerned about the impact on Felixstowe port[11]
- Mid Suffolk District Council[12]
- New Anglia Local Enterprise Partnership[13]
- The 'No Toll Tax for Suffolk' campaign, which includes local councils and business groups[14]

[9] A14 Study Output 3, Atkins, June 2012 https://www.gov.uk/government/consultations/a14-challenge

[10] Toll roads don't add up, Campaign for Better Transport, November 2012 http://www.bettertransport.org.uk/blogs/roads/281112-a14-tolls

[11] http://www.ipswichstar.co.uk/news/campaign_against_a14_toll_tax_has_real_momentum_1_2836869

[12] http://www.cambridge-news.co.uk/Ely/Dont-splash-1m-of-our-cash-on-A14-upgrade-spend-it-on-cycling-facilities-instead-plead-Ely-campaigners-20130930060003.htm

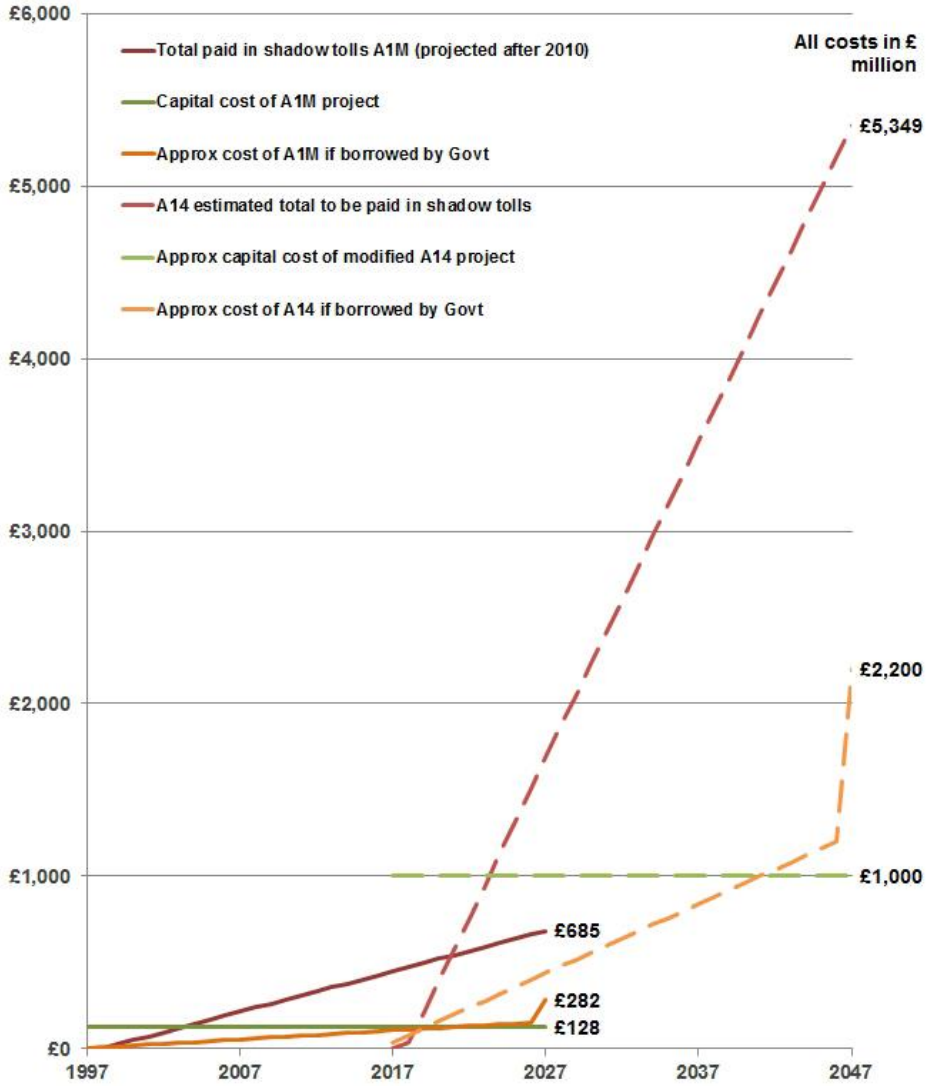
[13] http://www.bbc.co.uk/news/uk-england-24317026

- Cycling groups in Cambridgeshire[15]
- The Road Haulage Association[16]
- The Labour Shadow Transport Secretary[17]
- Local UKIP candidates[18]

High cost of a 'shadow toll' option

Campaign for Better Transport has previously highlighted the very high cost of PFI-style shadow tolling,[19] using evidence from the A1(M) north of the A14 to show that this is not a good use of public money and that, if applied to the A14 project, the total cost to the public purse of a £1 billion project could exceed £5 billion.

Fig 6: The high cost of private finance via shadow tolls



[14] http://www.ipswichstar.co.uk/news/campaign_against_a14_toll_tax_has_real_momentum_1_2836869

[15] http://www.cambridge-news.co.uk/Ely/Dont-splash-1m-of-our-cash-on-A14-upgrade-spend-it-on-cycling-facilities-instead-plead-Ely-campaigners-20130930060003.htm

[16] http://www.cambridge-news.co.uk/Cambridge/Hauliers-launch-campaign-against-A14-toll-20130918163552.htm

[17] http://www.bbc.co.uk/news/uk-england-24206491

[18] http://www.cambridge-news.co.uk/Cambridge/A14-toll-and-parking-charges-in-UKIPs-sights-20131008055900.htm

[19] Problems with private roads, Campaign for Better Transport, August 2012 http://www.bettertransport.org.uk/files/admin/Problems_with_Private_Roads_FinalWeb.pdf

For a fully publicly funded project, there is a very strong case to look again for alternatives

The opportunity cost of spending up to £1.5 billion from the Highways Agency's budget on this one scheme is enormous. Better value could be had from a wide range of non-road building projects around the country and in the area of the A14. These cost effective measures could all miss out on potential funding if budgets were spent instead on the A14 project:

- Maintenance
- Information technology, variable speed limits and smart road management
- Safety measures, including policing and enforcing speed limits by installing average speed cameras
- Measures to retrofit improved environmental measures on existing roads, including water management, light pollution, landscaping and noise screening
- Projects to improve cycling facilities on, around and across the strategic road network
- Smaller projects to tackle genuine pinch points without increasing general capacity

Off the road network, there is a good case to be made for widening the study area and looking again at multi-modal improvement options for regional transport. These could include all the measures we proposed in response to the A14 Challenge, including prioritising the completion of the East-West Rail line project from Bedford to Cambridge ahead of a major regional road-building project.

Likely effects on air pollution may not be legal

The maps in Figs A1, A2 and A3 in the Appendix illustrate the current air pollution problems around the A14, including Air Quality Management Areas in Brampton, Fenstanton and the A14 corridor between Bar Hill and Girton and from the Girton Roundabout along the A14 Cambridge Northern Bypass.

Although congestion can contribute to higher emissions from cars and other traffic, the overwhelming cause of high pollution levels around roads is the volume of traffic. Although no accurate estimates of higher pollution resulting from the scheme can yet be made, the environmental impact summary in the current consultation document does acknowledge, as quoted above: *"air quality impacts including a potential deterioration in air quality resulting from higher traffic levels along the corridor."*

A simple consideration of the total number of lanes of traffic that will affect each location can be made, as shown in the appendix, leading to the inescapable conclusion that the scheme will increase air pollution in two existing AQMAs, and lead to higher pollution levels in other areas nearby.

The table in Fig 7, which contains extracts of data from the most recent updates from local councils for the Brampton and Bar Hill to Girton AQMAs, shows that several of the monitoring points have been close to or above the legal limit for NO2 in recent years (the current limit is an annual mean concentration of 40$\mu g/m^3$, which is set at a level known to cause serious health effects, particularly in children).

Fig 7: Recent air pollution measurements in Brampton[20] and around the A14 near Cambridge[21]

Site	NO2 annual mean concentration (adjusted for bias) μg/m^3				
	2007	2008	2009	2010	2011
Brampton AQMA - Brampton 1	**35.4**	**39**	**33.6**	**35.6**	**27.4**
Bar Hill to Girton AQMA – Bar Hill	**34**	**42**	**39**	**30***	**43**
Bar Hill to Girton AQMA – Impington A14	**41**	**35**	**33**	**30***	**31**

* Annualised mean in 2010 due to data capture <75%

It is therefore likely that the scheme as it stands could not proceed without pushing these areas and other locations nearby above (or further above) the legal limits.

While specific air pollution problems along the route of the current A14 may be reduced by the scheme because traffic is moved to the new road, by increasing and inducing traffic along the whole A14 corridor in the long term, and by more than doubling the number of lanes of traffic passing near current areas of concern, air pollution across a wider area will be made significantly worse. This is likely to include pushing a number of locations from below to above current EU legal limit values.

If evidence that this will be the case emerges from a full environmental assessment of the scheme, it is likely the scheme could not legally be pursued.

EU legislation,[22] and the recent Supreme Court ruling that the UK is failing in its legal duty to protect people from the effects of air pollution,[23] is clear that areas currently within legal limits cannot be pushed over them, and it is certainly not sufficient to 'net off' gains in one place against an induced breach of the legal limit in another.

[20] Huntingdonshire District Council, Updating and Screening Assessment 2012 http://www.huntingdonshire.gov.uk/SiteCollectionDocuments/HDCCMS/Documents/Environmental%20Health%20documents/Air%20Quality/2012%20-%20Air%20Quality%20Updating%20and%20Screening%20Assessment%20report%20-%20including%20appraisal%20report.pdf

[21] South Cambridgeshire District Council, Updating and Screening Assessment 2012 http://www.scambs.gov.uk/sites/www.scambs.gov.uk/files/documents/ED57938003%20South%20Cambs%202012%20USA%20Report%20Final.pdf

[22] Directive 2008/50/EC http://ec.europa.eu/environment/air/quality/legislation/existing_leg.htm

[23] News about Supreme Court decision with links to summary and full judgment http://www.healthyair.org.uk/clientearth- triumph-in-the-supreme-court/

4. Conclusion

The Highways Agency needs to look at more sustainable long-term options

It is important to remember that congestion is not the only problem caused by high traffic levels so we ask the Government and Highways Agency to look again at ways to support and reinforce trends for a reduction in traffic, not merely to accommodate forecasts or encourage a return to traffic growth.

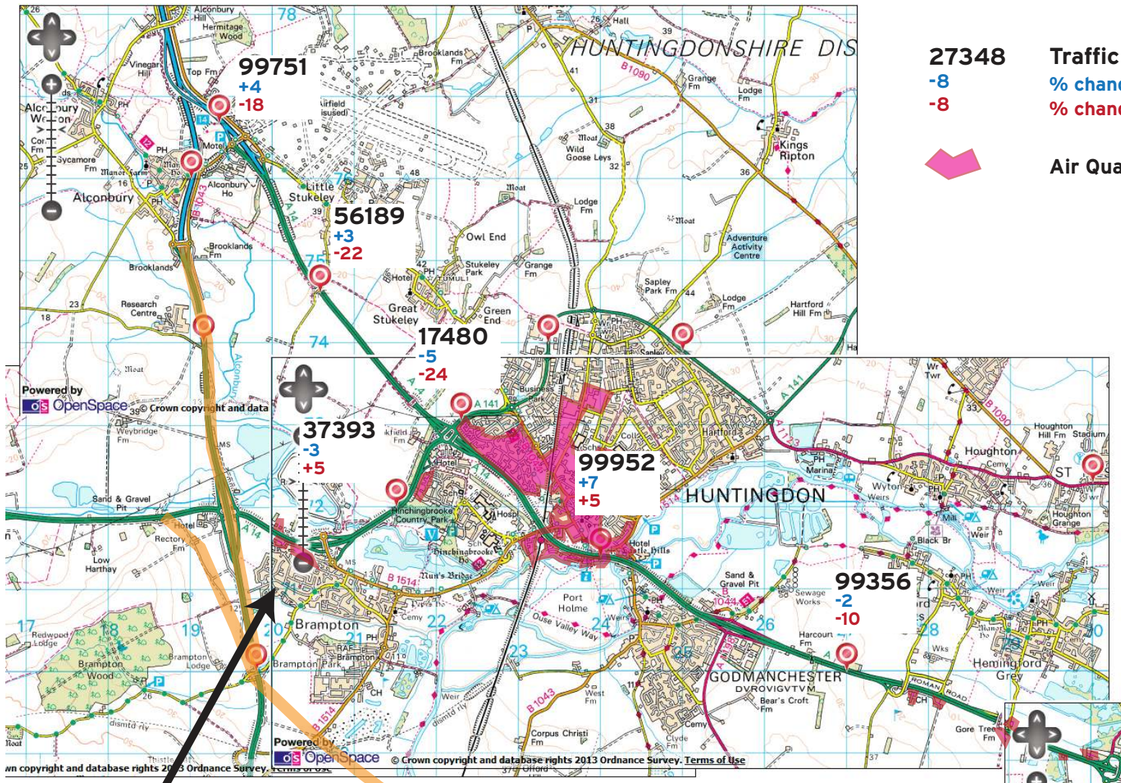
Reducing traffic levels would help solve congestion problems more permanently and sustainably, and would also bring additional benefits for air pollution and noise, cutting carbon emissions and reducing the economy's reliance on fossil fuels. Adding new road capacity would exacerbate all of these problems – in the case of air pollution in ways that are likely to breach legal limits – while providing only a temporary improvement in congestion and encouraging more traffic in the short and long term.

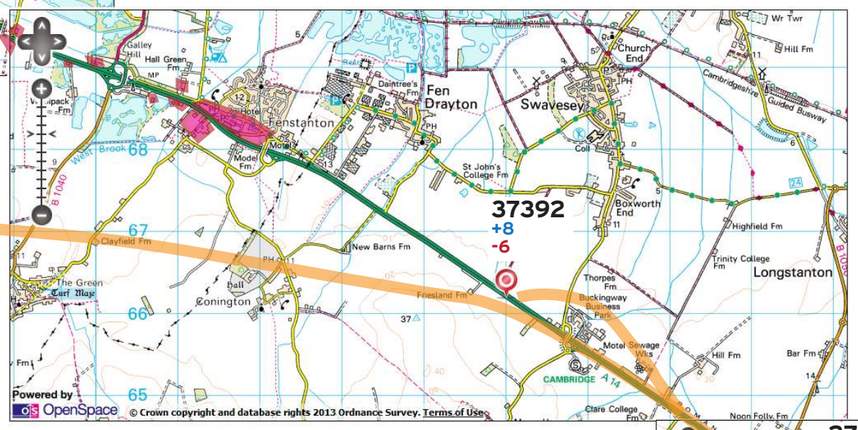
With or without tolls, the increased capacity would also lead to long-term 'knock-on' traffic on surrounding roads and would therefore increase traffic-related problems across a wide area.

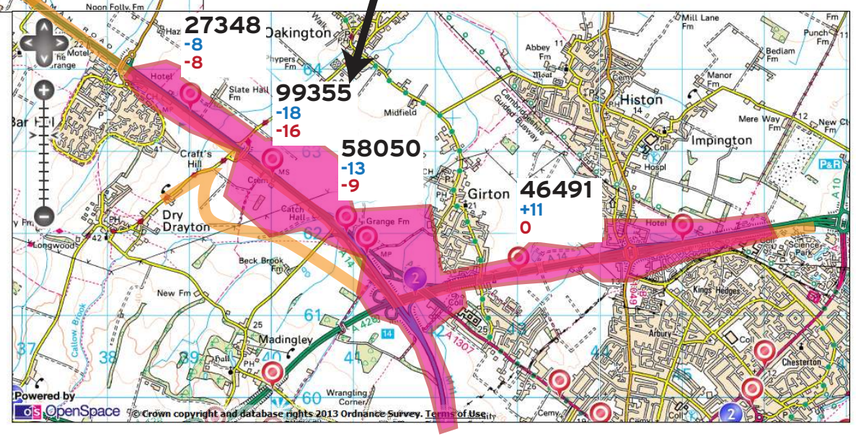
We therefore strongly urge the Government to commission a more concerted, wide-ranging multi-modal review of the transport problems in the A14 corridor, focused on finding ways of reducing congestion that exclude road-building. These should then be consulted upon to produce an integrated package of measures that are implemented by the Highways Agency.

Appendix – Recent traffic changes on the A14 and the extent of planned new road capacity on current Air Quality Management Areas and surroundings

Figure A1: The A14 Study Area







27348 **Traffic count point number**
-8 % change in all traffic 2002 to 2012
-8 % change in HGV traffic 2002 to 2012

Air Quality Management Areas

Brampton AQMA

Currently:
A14: 4 lanes
A1: 4 lanes

TOTAL:
8 lanes of traffic around Brampton

Project will add:
New A14: +6 lanes (+4 lanes beyond the A1)
A1 widening: +2 lanes

NEW TOTAL:
14 to 16 lanes of traffic around Brampton

Bar Hill to Girton AQMA

Currently:
A14: 4-6 lanes

TOTAL: 4-6 lanes of traffic along corridor

Project will add:
A14 widening: +2 lanes
New local roads: +2 lanes

NEW TOTAL: 8-10 lanes of traffic along corridor

Figure A2 – Brampton detail

Brampton AQMA

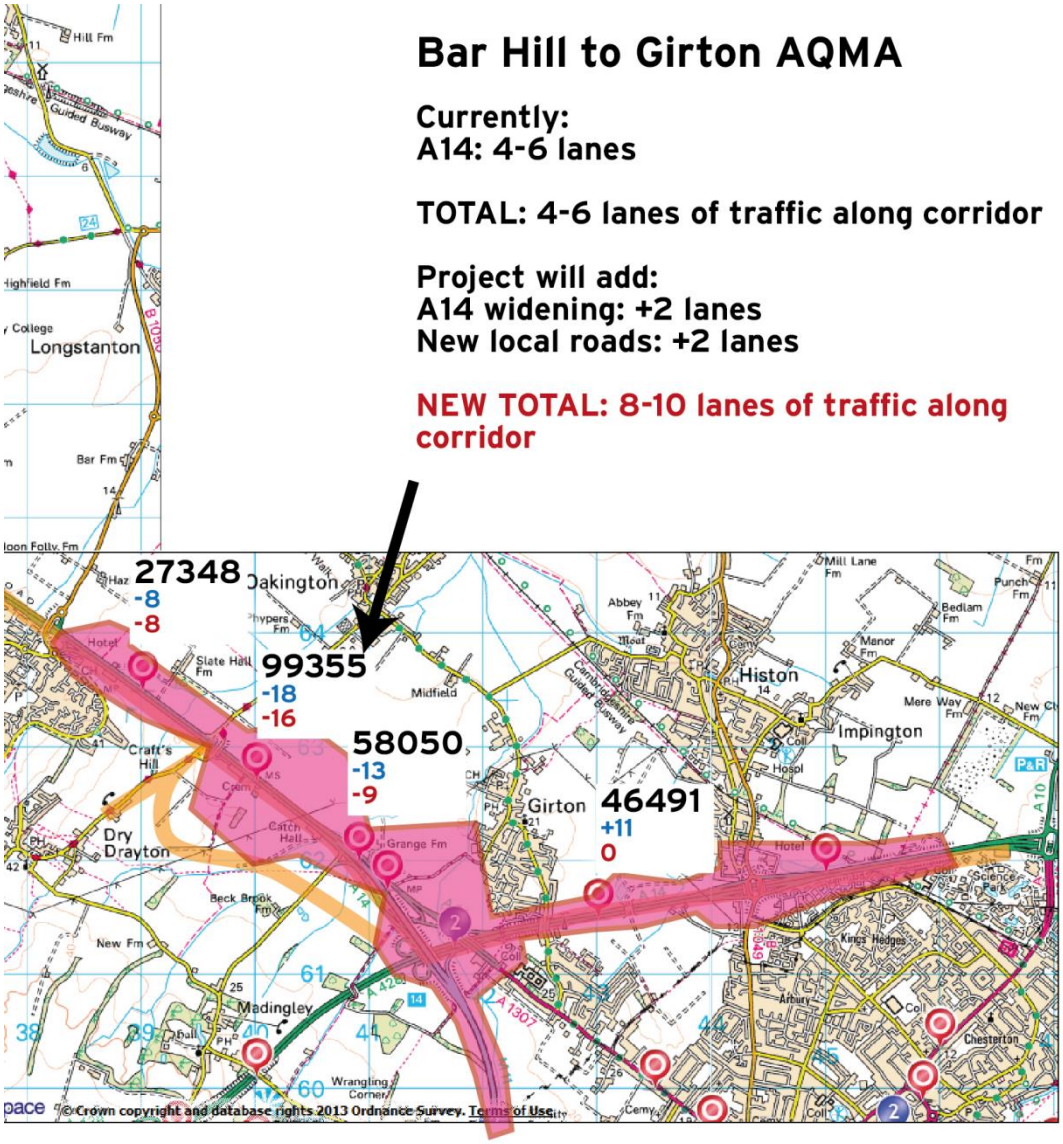
Currently:
A14: 4 lanes
A1: 4 lanes

TOTAL:
8 lanes of traffic around Brampton

Project will add:
New A14: +6 lanes (+4 lanes beyond the A1)
A1 widening: +2 lanes

NEW TOTAL:
14 to 16 lanes of traffic around Brampton

Figure A3 – Bar Hill to Girton detail



October 2013

Sian Berry, Roads and Sustainable Transport Campaigner
Campaign for Better Transport

Campaign for Better Transport's vision is a country where communities have affordable transport that improves quality of life and protects the environment. Achieving our vision requires substantial changes to UK transport policy which we aim to achieve by providing well-researched, practical solutions that gain support from both decision-makers and the public.

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